

Copper Communication Facilities Usage in the IP Transition

Wholesale and Interconnection: Overview

- Copper and IP
 - IP and TDM are switching protocols
 - Copper and fiber are facility types
 - Voice traffic that originated on both copper and fiber facilities can be exchanged in either IP or TDM formats
- Overview of CLEC reliance on copper facilities
 - Summarize various CLEC business models
 - Facility-based CLECs and Resellers both rely on last-mile copper facilities
 - Facility-based CLECs lease unbundled network elements (UNEs) such as 2-wire copper loops
 - Resellers purchase finished ILEC services that ride over copper loops
 - Other two presenters on our panel represent facility-based companies
 - Extensive owned network assets that they combine with copper last-mile wholesale inputs (that they will describe)
 - Self-deploy fiber last-mile facilities where feasible
 - Fiber is expensive and is not ubiquitously deployed (20% of commercial buildings served by fiber)

- Most common last-mile inputs are DSL-capable loops that serve residential and business customer premises
 - ILECs required to provide as unbundled network elements (UNEs)
 - ILECs not required to unbundle/provide access to fiber circuits
 - CLECs use copper UNE loops to serve residential and business customers
 - Voice and broadband
 - Wireless not a viable option for business customers
 - Integrated voice and broadband CPE
 - Bonded Ethernet over copper (speeds)
 - Threats to continued access to copper loops
 - Copper retirement notices
 - ILEC failure to maintain copper (de facto)
 - Other
- Other copper-based last-mile inputs (resale, wholesale platform service)
- IP Interconnection
 - Most efficient way to exchange interconnected VoIP traffic regardless of type of facility that serves end user customer (diagram)
 - Commission has found that agreements with ILECs are subject to the filing and opt-in requirements of Section 252 of the Act